Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method of making a semiconductor radiation emitter package comprising:

forming a leadframe assembly from a sheet, roll, or strip of electrically and thermally conductive material, the leadframe assembly having a heat extraction element and a plurality of ~~thermally resistive~~ leads having a greater thermal resistance than the heat extraction element, at least one tie-bar connecting at least one of said plurality of leads ~~lead~~ to another ~~lead~~;

bonding at least one semiconductor radiation emitter directly to ~~the~~ said heat extraction element with one or more bonding materials, each semiconductor radiation emitter having a plurality of ~~electrical connection points~~electrodes;

forming an electrical connection between said at least one of the electrodes ~~electrical connection point~~ and said at least one lead ~~connected to the other lead by the at least one tie-bar~~;

encapsulating ~~the~~ said at least one semiconductor radiation emitter with a material substantially transparent to wavelengths emitted by ~~the~~ said at least one semiconductor radiation emitter while also encapsulating portions of said heat extraction element and said electrical leads such that some surfaces of said heat extraction element and some surfaces of said electrical leads are left unencapsulated; and

~~breaking each of the~~cutting said at least one tie-bar.

2. (Currently amended) A method of making a plurality of semiconductor radiation emitter packages comprising the steps of:

forming a multi-leadframe assembly from a sheet, roll, or strip of electrically and thermally conductive material, the multi-leadframe assembly having a plurality of leadframes each including a heat extraction element, ~~and~~ a plurality of ~~thermally resistive~~ leads having

greater thermal resistance than said heat extraction element, and a recessed optically reflective cup formed in said heat extraction element, said ~~the~~ multi-leadframe assembly further including ~~a plurality of tie-bars~~at least one tie-bar connecting one of said plurality of ~~leadframes~~ leadframes to ~~one~~ another;

~~bonding~~ mounting at least one semiconductor radiation emitter on said heat extraction element and ~~to~~ within said recessed optically reflective cup of more than one of said leadframes in the multi-leadframe assembly ~~each heat extraction element~~such that at least a portion of the radiation emitted from each of said at least one semiconductor radiation emitter within said recessed optically reflective cup is reflected by said recessed optically reflective cup, each semiconductor radiation emitter having a plurality of ~~electrical connection points~~electrodes;

forming an electrical connection between at least one ~~electrical connection point~~ of said electrodes of said at least one said semiconductor radiation emitter and said at least one of said plurality of leads of a corresponding one of said leadframes; and

on more than one of said plurality of leadframes and on a corresponding one of said at least one semiconductor radiation emitter, encapsulating said at least one semiconductor radiation emitter with a material substantially transparent to wavelengths emitted by the at least one semiconductor radiation emitter while also encapsulating portions of said heat extraction element and said electrical leads such that some surfaces of said heat extraction element and some surfaces of said electrical leads are left unencapsulated;

so as to create a plurality of interconnected semiconductor radiation emitter packages.

3. (Currently amended) The method of claim 2 and further comprising the step of breaking, cutting, or removing one or more of said ~~each of the~~ tie-bars to separate ~~the~~ a semiconductor radiation emitter ~~packages~~ package from ~~one~~ another.

4. (Canceled)

5. (Currently amended) The method of claim 2, wherein the multi-leadframe assembly includes an additional tie-bar for each leadframe that couples at least one of said electrical leads to one of said heat extraction ~~members~~elements.

6. (Currently amended) The method of claim 2, wherein said tie-bars couple together at least two of said heat extraction elements~~members~~.

7. (Currently amended) The method of claim ~~2~~ 1 and further comprising the step of forming at least one recessed optically reflective cup in ~~each~~ said heat extraction ~~member~~ element and attaching ~~the~~ said at least one semiconductor radiation emitter in said recessed optically reflective cup.

8. (Currently amended) The method of claim ~~7~~ 2 and further comprising the step of coating each recessed optically reflective cup with an optically reflective coating.

9. (Currently amended) The method of claim 2, wherein said plurality of electrical leads for each leadframe includes at least first and second electrical leads, said second electrical lead is formed as an integral extension of the heat extraction elements~~member~~.

10. (Currently amended) The method of claim 2, wherein said plurality of electrical leads is formed thinner than the heat extraction elements~~members~~, both measured in a direction substantially parallel to the optic axis of said recessed optically reflective cup.

11. (Currently amended) The method of claim ~~2~~10, wherein the thickness of the heat extraction elements~~members are formed to be~~is at least three times the thickness of each electrical lead.

12. (Currently amended) The method of claim 2, wherein at least one of said plurality of electrical leads for each leadframe is electrically isolated from ~~the~~ said heat extraction element~~member~~.

13. (Currently amended) The method of claim 12 and further including the step of providing a tie-bar for each leadframe to connect each isolated electrical lead to one of ~~the~~ said heat extraction elements ~~member~~ and another of the plurality of leads.

14. (Original) The method of claim 13, wherein said step of encapsulating includes covering a portion of each isolated lead with material.

15. (Currently amended) The method of claim 14 and further including the step of breaking, cutting, or removing the tie-bar connecting each isolated electrical lead to one of ~~the~~ said heat extraction elements or~~member~~ ~~and~~ another of the plurality of leads, after the encapsulating step.

16. (Currently amended) The method of claim 2, wherein said step of forming a multi-leadframe assembly includes stamping the multi-leadframe assembly out of an integral metal strip.

17. (Currently amended) The method of claim 2, wherein ~~each of the heat extraction members is constructed with a thick cross-sectional area normal to the path of heat flow away from the~~said at least one semiconductor radiation emitter is bonded to said heat extraction element at a position that is closer to the nearest unencapsulated surface of said heat extraction element than to the nearest unencapsulated surface of said ~~relative to the thickness of the~~ electrical leads.

18. (Currently amended) The method of claim 2, wherein each of the heat extraction elements~~members~~ is formed with at least one of ~~notches,~~ fins, slots, and holes to increase

surface area outside a portion of the heat extraction elements~~members~~ to be covered with an encapsulant.

19. (Currently amended) The method of claim 2, wherein each of ~~the~~ said heat extraction elements~~members~~ is formed in the shape of a plate.

20. (New) The method of claim 2, wherein the method of bonding the semiconductor radiation emitter includes soldering.

21. (New) The method of claim 2, wherein the method of bonding the semiconductor radiation emitter includes dispensing and curing electrically conductive epoxy.

22. (New) The method of claim 2, wherein said at least one semiconductor radiation emitter is mounted on a first surface of said heat extraction element that is opposite an unencapsulated second surface of said heat extraction element that is exposed at least within an area directly opposite an area of the first surface where said at least one semiconductor radiation emitter is mounted.

23. (New) The method of claim 2, wherein the method of forming an electrical connection between said at least one of the electrodes includes wire bonding.

24. (New) The method of claim 2, wherein said at least one semiconductor radiation emitter is of flip-chip construction and the method of forming an electrical connection between said at least one of the electrodes includes soldering.

25. (New) The method of claim 2, wherein the step of encapsulating said at least one semiconductor radiation emitter includes forming a lens integral with the substantially transparent material.

26. (New) The method of claim 2, wherein the depth of said at least one recessed optically reflective cup is equal to or greater than the height of said at least one semiconductor radiation emitter, each measured in the dimension parallel to the optic axis of the reflective cup within which said at least one semiconductor radiation emitter is mounted.

27. (New) The method of claim 26, further including an additional step wherein said at least one recessed optically reflective cup is filled to cover said at least one semiconductor radiation emitter mounted within said recessed optically reflective cup, with a soft, transparent material prior to encapsulation.

28. (New) The method of claim 2, wherein the method of forming an electrical connection between said at least one of the electrodes includes wire bonding and the method further includes an additional step wherein said at least one recessed optically reflective cup is filled to cover said at least one semiconductor radiation emitter mounted within said recessed optically reflective cup, with a soft, transparent material, so as to cover the wire bond termination on said semiconductor radiation emitter with the soft transparent material, prior to encapsulation.

29. (New) The method of claim 2, wherein the multi-leadframe assembly is formed with one or more slots or holes to provide a means to facilitate handling by automated handling and placement equipment for the multi-leadframe assembly in subsequent steps of the method.

30. (New) The method of claim 29, further including a step of cutting away a portion of said multi-leadframe assembly containing one or more of said one or more slots or holes after the encapsulation step.

31. (New) The method of claim 30, wherein one or more of said one or more slots or holes provides both a means to facilitate handling by automated handling and placement equipment for the multi-leadframe assembly in subsequent steps of the method and a means of attachment for the finished package.

32. (New) The method of claim 29, wherein one or more of said one or more slots or holes provides both a means to facilitate handling by automated handling and placement equipment for the multi-leadframe assembly in subsequent steps of the method and a means of attachment for the finished package.

33. (New) The method of claim 1, wherein a cross-sectional area of said heat extraction element measured in a plane normal to the path between the at least one semiconductor radiation emitter and the nearest unencapsulated surface of said heat extraction element is greater than a cross-sectional area of each of said electrical leads measured in a plane that is normal to the path of heat flow between said at least one semiconductor radiation emitter and the nearest unencapsulated surface of said electrical leads, during operation of the package.

34. (New) The method of claim 1, wherein said at least one semiconductor radiation emitter is mounted on a first surface of said heat extraction element that is opposite an unencapsulated second surface of said heat extraction element that is exposed at least within an area directly opposite an area of the first surface where said at least one semiconductor radiation emitter is mounted.

35. (New) The method of claim 1, wherein the method of bonding of the semiconductor radiation emitter includes soldering.

36. (New) The method of claim 1, wherein the method of bonding of the semiconductor radiation emitter includes dispensing and curing electrically conductive epoxy.

37. (New) The method of claim 1, wherein the method of forming an electrical connection between said at least one of the electrodes includes wire bonding.

38. (New) The method of claim 1, wherein said at least one semiconductor radiation emitter is of flip-chip construction and the method of forming an electrical connection between said at least one of the electrodes includes soldering.

39. (New) The method of claim 1, wherein each of the heat extraction elements is formed with one or more slots or holes to provide a means to facilitate handling by automated handling and placement equipment and a means to attach for the finished package.

40. (New) The method of claim 1, wherein 65% or less of the surface area of said heat extraction element is encapsulated by the substantially transparent material.

41. (New) The method of claim 1, wherein said heat extraction element has a bottom surface that lies in a plane below the bottom-most surface of said electrical leads and wherein the substantially transparent material does not extend below the plane of the bottom surface of said heat extraction element.

42. (New) A method of making a semiconductor radiation emitter package comprising:

forming a leadframe assembly from a sheet, roll, or strip of electrically and thermally conductive material, the leadframe assembly having a heat extraction element and a plurality of leads having a greater thermal resistance than the heat extraction element, at least one tie-bar connecting at least one of said plurality of leads to another;

mounting at least one semiconductor radiation emitter on a first surface of said heat extraction element, each semiconductor radiation emitter having a plurality of electrodes;

forming an electrical connection between at least one of the electrodes and said at least one lead;

encapsulating said at least one semiconductor radiation emitter with an encapsulant material substantially transparent to wavelengths emitted by said at least one semiconductor radiation emitter, said encapsulant material covering a portion of the first surface of said heat extraction element, while leaving exposed at least a portion of a second surface of said heat

extraction element that is opposite the first surface, the exposed portion of the second surface being directly opposite an area of the first surface where said at least one semiconductor radiation emitter is mounted; and

breaking, cutting, or removing said at least one tie-bar.

43. (New) A method of making a semiconductor radiation emitter package comprising:

forming a leadframe assembly from a sheet, roll, or strip of electrically and thermally conductive material, the leadframe assembly having a heat extraction element, a plurality of leads having a greater thermal resistance than said heat extraction element, and at least one tie-bar connecting at least one lead of said plurality of leads to another, the heat extraction element having a thickness in a direction that is substantially parallel to the direction in which radiation is emitted from the semiconductor radiation emitter package that is greater than the thickness of the electrical leads;

mounting at least one semiconductor radiation emitter on the heat extraction element, each semiconductor radiation emitter having a plurality of electrodes;

forming an electrical connection between at least one of the electrodes and said at least one lead;

encapsulating said at least one semiconductor radiation emitter with an encapsulant material substantially transparent to wavelengths emitted by said at least one semiconductor radiation emitter; and

breaking, cutting, or removing said at least one tie-bar.

44. (New) The method of claim 43, wherein the thickness of the heat extraction element is at least three times the thickness of the electrical leads.